

[Search Summary]

**Results of searching in PCT (Full Text) for:**

**crystal near (resonator or oscillator or vibrator) and first near (groove or grooves or incisions or incised or cut or cuts): 11 records**

*Showing records 1 to 11 of 11 :*

Refine Search	crystal near (resonator or oscillator or vibrator) and fir
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**Title**

1. (WO 2003/060606) RUBIDIUM TITANYL ARSENATE-SILVER GALLIUM SELENIDE TANDEM OPTICAL PARAMETRIC *OSCILLATOR*  
[Repub: 18.03.2004]
2. (WO 03/060606) RUBIDIUM TITANYL ARSENATE-SILVER GALLIUM SELENIDE TANDEM OPTICAL PARAMETRIC *OSCILLATOR*
3. (WO 02/082656) HIGH FREQUENCY VCXO STRUCTURE
4. (WO 01/82420) SYSTEM AND METHOD FOR PROVIDING COLLIMATED ELECTROMAGNETIC ENERGY IN THE 8-12 MICRON RANGE
5. (WO 01/81878) SYSTEM AND METHOD FOR SENSING ATMOSPHERIC CONTAMINANTS USING TRANSMITTER WITH DUAL OPTICAL PARAMETRIC OSCILLATORS AND RECEIVER FOR SAME
6. (WO 01/50555) MONOLITHIC SERIAL OPTICAL PARAMETRIC *OSCILLATOR*
7. (WO 01/22592) MATCHED *CRYSTAL* TEMPERATURE COMPENSATION DEVICE
8. (WO 01/06647) *RESONATOR* STRUCTURE AND A FILTER COMPRISING SUCH A *RESONATOR* STRUCTURE
9. (WO 99/28737) METHOD AND APPARATUS FOR CONTINUOUSLY MONITORING AN AQUEOUS FLOW TO DETECT AND QUANTIFY IONS
10. (WO 98/56050) ELECTRODE EDGE WAVE PATTERNS FOR PIEZOELECTRIC *RESONATOR*
11. (WO 98/56049) ELECTRODE EDGE WAVE PATTERNS FOR PIEZOELECTRIC *RESONATOR*

**Search Summary**

**crystal NEAR resonator:** 0 occurrences in 0 records.

**crystal NEAR groove:** 202 occurrences in 94 records.

(crystal NEAR resonator AND crystal NEAR groove): 0 records.

**crystal NEAR oscillator:** 7320 occurrences in 2071 records.

**crystal NEAR groove:** 202 occurrences in 94 records.

(crystal NEAR oscillator AND crystal NEAR groove): 0 records.

((crystal NEAR resonator AND crystal NEAR groove) OR (crystal NEAR oscillator AND crystal NEAR groove)): 0 records.

**crystal NEAR vibrator:** 67 occurrences in 34 records.

**crystal NEAR groove:** 202 occurrences in 94 records.

(crystal NEAR vibrator AND crystal NEAR groove): 0 records.

((((crystal NEAR resonator AND crystal NEAR groove) OR (crystal NEAR oscillator AND crystal NEAR groove)) OR (crystal NEAR vibrator AND crystal NEAR groove))): 0 records.

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If you use the AND/OR operation, please leave a **SPACE** between keywords.

One letter word or **Stopwords** are not searchable.

[OR](#)**AND**[AND](#)**AND**[AND](#)**AND****Date of publication of application — e.g. 19980401 - 19980405** - **AND****IPC — e.g. D01B7/04 A01C11/02**

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resonator oscillator vibrator

OR

AND

manufacture

AND

AND

crystal quartz

AND

AND

**Date of publication of application** — e.g. 19980401 - 19980405

AND

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**RESULT LIST**

37 results found in the Worldwide database for:

**resonator or vibrator or oscillator** in the title AND **plurality and grooves** in the title or abstract  
(Results are sorted by date of upload in database)

- 21 PIEZOELECTRIC VIBRATOR AND EXTERNAL FORCE DETECTING SENSOR USING THE VIBRATOR**  
Inventor: KONAKA YOSHIHIRO      Applicant: MURATA MANUFACTURING CO  
EC:      IPC: G01P15/09; G01P9/04; (+1)  
Publication info: **JP10054842** - 1998-02-24
- 22 ULTRASONIC VIBRATOR AND ULTRASONIC MOTOR**  
Inventor: FUNAKUBO TOMOKI; TSUBATA TOSHIHARU;      Applicant: OLYMPUS OPTICAL CO  
(+2)  
EC:      IPC: H02N2/00; H01L41/083  
Publication info: **JP9009656** - 1997-01-10
- 23 SOLID LASER OSCILLATOR**  
Inventor: TAKEUCHI KIYOSHI; YOSHIDA KUNIO; (+1)      Applicant: SHIN MEIWA IND CO LTD; YOSHIDA KUNIO  
EC:      IPC: H01S3/042; H01S3/08; (+1)  
Publication info: **JP8250783** - 1996-09-27
- 24 INTAKE RESONATOR MOUNTING STRUCTURE**  
Inventor: OOISHI SHIYUUJI      Applicant: SUZUKI MOTOR CO  
EC:      IPC: F02M35/12  
Publication info: **JP7310614** - 1995-11-28
- 25 Dielectric resonator apparatus including means for adjusting the degree of coupling**  
Inventor: TADA HITOSHI [JP]; KATO HIDEYUKI [JP];      Applicant: MURATA MANUFACTURING CO [JP]  
(+5)  
EC: H01P1/205C      IPC: H01P1/205  
Publication info: **US5537082** - 1996-07-16
- 26 PIEZOELECTRIC VIBRATOR AND PIEZOELECTRIC VIBRATION GYROSCOPE**  
Inventor: TSURUGA KIKUO; ONO TOMEJI; (+1)      Applicant: TOKIN CORP  
EC:      IPC: G01C19/56  
Publication info: **JP4331312** - 1992-11-19
- 27 GAS LASER OSCILLATOR**  
Inventor: SEKINE AKIYOSHI; MIZUNO JUN      Applicant: ZEXEL CORP  
EC:      IPC: H01S3/03; H01S3/097  
Publication info: **JP4304688** - 1992-10-28
- 28 OUTER RESONATOR TYPE SEMICONDUCTOR LASER AND MANUFACTURE THEREOF**  
Inventor: SAITO HIDEHO; IMAMURA YOSHIHIRO      Applicant: NIPPON TELEGRAPH & TELEPHONE  
EC:      IPC: H01S3/18  
Publication info: **JP1183875** - 1989-07-21
- 29 ULTRASONIC WAVE VIBRATOR**  
Inventor: MISHIRO SHOJI      Applicant: TAGA DENKI KK  
EC: H01L41/09E      IPC: B06B1/06; H02N2/00; (+1)  
Publication info: **JP62171473** - 1987-07-28
- 30 GAS LASER OSCILLATOR**  
Inventor: ITO HIROSHI; ISHIDA SHUICHI; (+1)      Applicant: TOKYO SHIBAURA ELECTRIC CO  
EC: H01S3/038      IPC: H01S3/02

**RESULT LIST**

0 results found in the Worldwide database for:

**resonator or vibrator or oscillator** in the title AND **plurality and incisions** in the title or abstract  
(Results are sorted by date of upload in database)

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Searching PCT (Full Text)...

[Search Summary]

**Results of searching in PCT (Full Text) for:**

**crystal near ( resonator or oscillator or vibrator ) and plurality near ( groove or grooves or incisions or incised or cut or cuts ): 0 records**

Refine Search

crystal near (resonator or oscillator or vibrator) and pl

No records matching your query found in PCT (Full Text)

### Search Summary

**crystal NEAR resonator:** 0 occurrences in 0 records.

**crystal NEAR groove:** 202 occurrences in 94 records.

(crystal NEAR resonator AND crystal NEAR groove): 0 records.

**crystal NEAR oscillator:** 7320 occurrences in 2071 records.

**crystal NEAR groove:** 202 occurrences in 94 records.

(crystal NEAR oscillator AND crystal NEAR groove): 0 records.

((crystal NEAR resonator AND crystal NEAR groove) OR (crystal NEAR oscillator AND crystal NEAR groove)): 0 records.

**crystal NEAR vibrator:** 67 occurrences in 34 records.

**crystal NEAR groove:** 202 occurrences in 94 records.

(crystal NEAR vibrator AND crystal NEAR groove): 0 records.

((crystal NEAR resonator AND crystal NEAR groove) OR (crystal NEAR oscillator AND crystal NEAR groove)) OR (crystal NEAR vibrator AND crystal NEAR groove)): 0 records.

**plurality NEAR groove:** 3528 occurrences in 1546 records.

(((((crystal NEAR resonator AND crystal NEAR groove) OR (crystal NEAR oscillator AND crystal NEAR groove)) OR (crystal NEAR vibrator AND crystal NEAR groove)) AND plurality NEAR groove): 0 records.

**crystal NEAR resonator:** 0 occurrences in 0 records.

**crystal NEAR grooves:** 197 occurrences in 97 records.

(crystal NEAR resonator AND crystal NEAR grooves): 0 records.

**crystal NEAR oscillator:** 7320 occurrences in 2071 records.

**crystal NEAR grooves:** 197 occurrences in 97 records.

(crystal NEAR oscillator AND crystal NEAR grooves): 2 records.

((crystal NEAR resonator AND crystal NEAR grooves) OR (crystal NEAR oscillator AND crystal NEAR grooves)): 2 records.

**crystal NEAR vibrator:** 67 occurrences in 34 records.

**crystal NEAR grooves:** 197 occurrences in 97 records.

(crystal NEAR vibrator AND crystal NEAR grooves): 0 records.

(((((crystal NEAR resonator AND crystal NEAR grooves) OR (crystal NEAR oscillator AND crystal NEAR grooves)) OR (crystal NEAR vibrator AND crystal NEAR grooves)): 2 records.

**plurality NEAR grooves:** 12917 occurrences in 4231 records.

(((((crystal NEAR resonator AND crystal NEAR grooves) OR (crystal NEAR oscillator





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Query :  
(((plurality <or> first) <near> (groove

Query: (( (plurality <or> first) <near> (grooves <or> groove)) <AND>  
(( (resonator <or> oscillator <or> vibrator) ) <in> title ) <AND> (( (crystal  
<or> quartz <or> AT) ) <in> abstract ) <AND> (( (Y) ) <in> license ) <AND>  
(( (EP) ) <in> invt\_country ))

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## Canadian Patents Database

### Search Results 03/11/2005 - 10:03:04

Query :  
((plurality <or> first) <near> (grooves

Query: ((plurality <or> first) <near> (grooves <or> groove)) <AND>  
(((resonator <or> oscillator <or> vibrator) <in> title) <AND> (((crystal  
<or> quartz <or> AT) <in> abstract) <AND> (((Y) <in> license) <AND>  
(((CA) <in> invt\_country) <AND> (ISD>=01/01/1999) <AND>  
(ISD<=12/31/1999))

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	Type	L #	Hits	Search Text	DBs
1	BRS	L1	162	manufactur\$3 same (resonator or oscillator or vibrator) and (plurality or first) adj3 (groove\$1 or incisi\$4)	USPAT
2	BRS	L2	63	manufactur\$3 same (resonators or oscillators or vibrators) and (plurality or first) adj3 (groove\$1 or incisi\$4)	USPAT
3	BRS	L3	215	manufactur\$3 same (resonator\$1 or oscillator\$1 or vibrator\$1) and (plurality or first) adj3 (groove\$1 or incisi\$4)	US- PGPUB; USOCR; EPO; JPO; DERWEN T; IBM_TD B